

Supplementary:

Enhancing Paclitaxel Efficacy with Piperine-Paclitaxel Albumin Nanoparticles in Multidrug-Resistant Triple-negative Breast Cancer by Inhibiting P-glycoprotein

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Table S1 The sequences of primers use for qPCR.

Oligo name	Source	Sequence (5'-3')
MDR1-F	Human	TGACTACCAGGCTCGCCAATGAT
MDR1-R	Human	TGTGCCACCAAGTAGGCTCCAAA
GAPDH-F	Human	AGAAGGCTGGGGCTCATTTG
GAPDH-R	Human	AGGGGCCATCCACAGTCTTC
Mdr1-F	Mice	GTGGGGGACAGAAACAGAGA
Mdr1-R	Mice	GAACGGTAGACAAGCGATGAG
Gapdh-F	Mice	CAAGGCTGTGGGCAAGGTCA
Gapdh-R	Mice	AGGTGGAAGAGTGGGAGTTGCTG

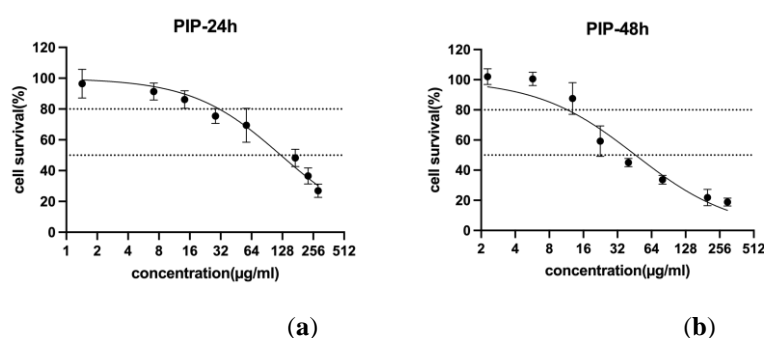
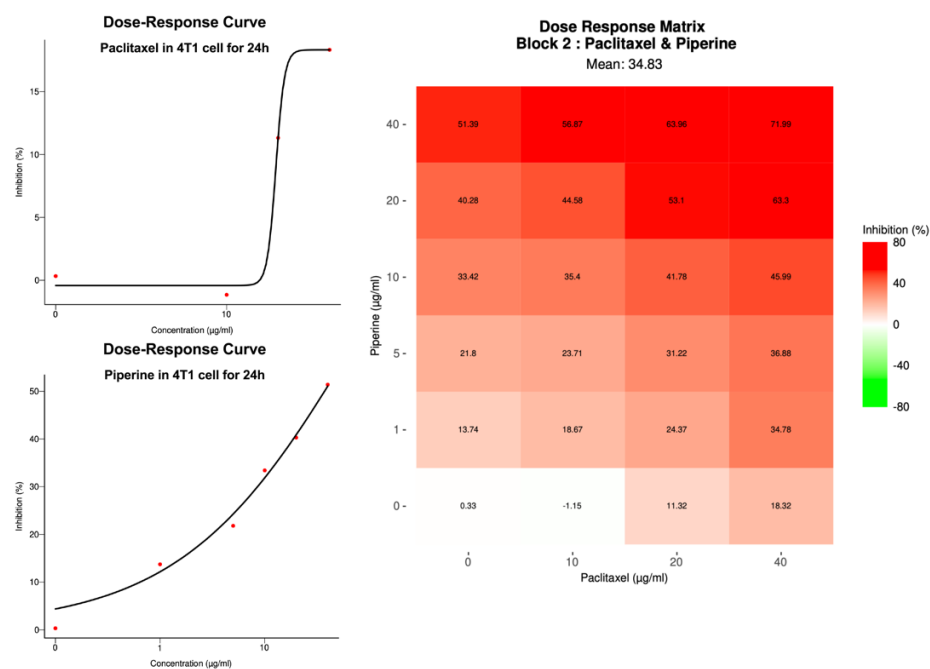
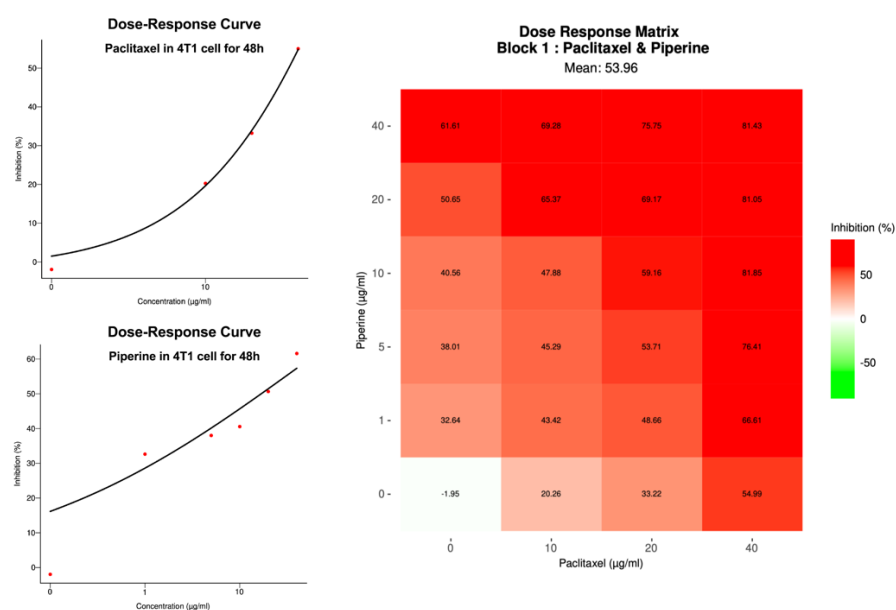


Figure S1. The cell survival of PIP treated with 4T1 cells for 24 h(a) and 48 h(b) respectively.



(a)



(b)

Figure S2. The dose-response curve of PTX and PIP, and the dose-response matrix between PTX and PIP was drawn by SynergyFinder+ (<https://synergyfinder.org>). (a) treatment on 4T1 cell for 24h. (b) treatment on 4T1 cell for 48h.

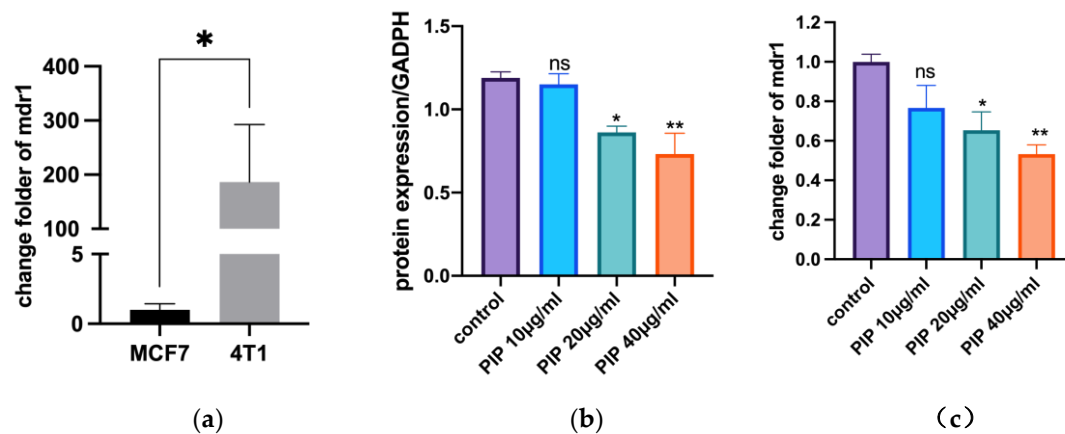


Figure S3. (a) The expression of mdr1 in MCF7 cell and 4T1 cells. (b): Quantified the P-gp expression caused by PIP through WB. (c): the effect of PIP on mdr1 gene regulation by qPCR. n=3, * <0.05 , compare with control group.

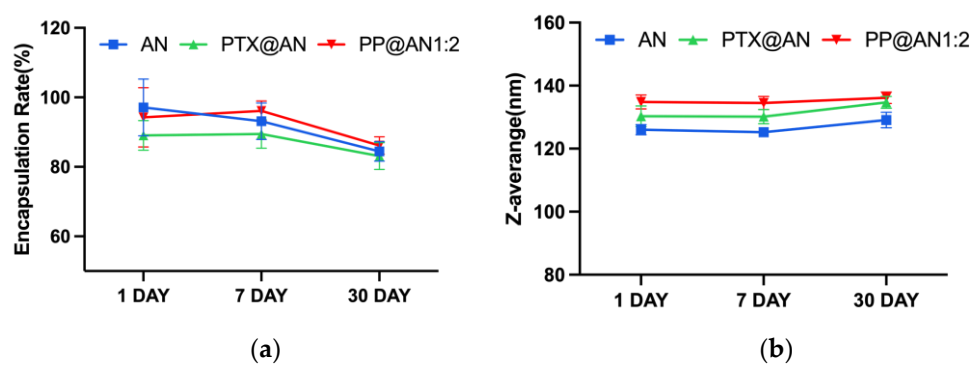


Figure S4. The Stability of encapsulation rate (a) and size (b).

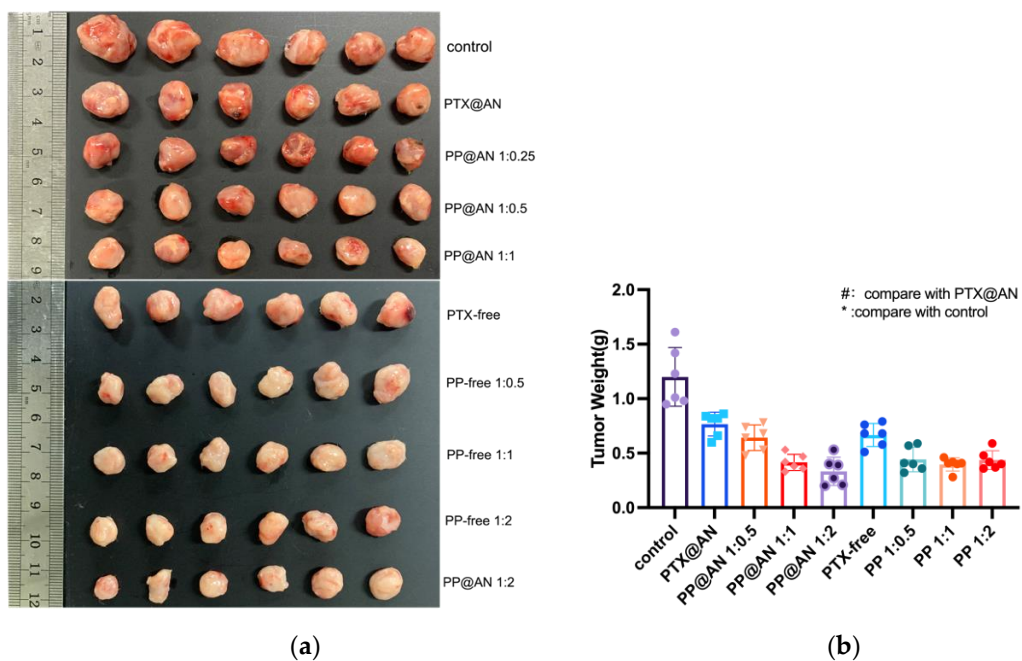


Figure S5. (a)The tumor tissue of mice after administration. **(b)** The tumor weight of each group after administration.

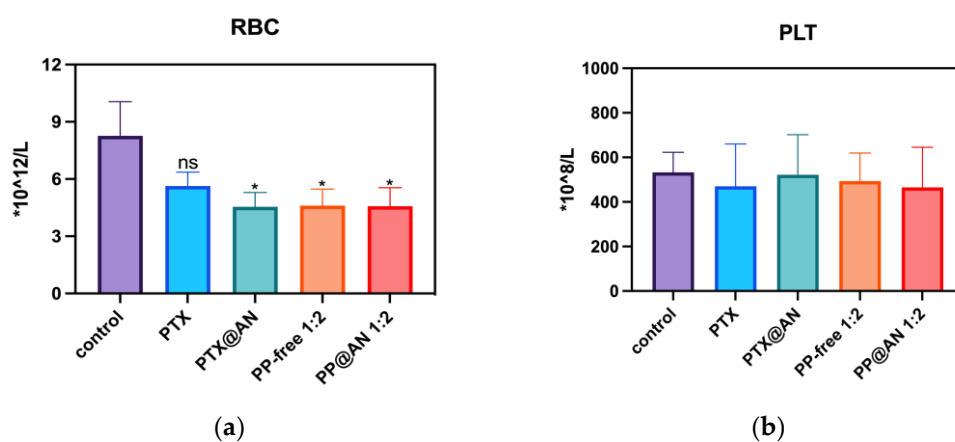


Figure S6. The counts of Red Blood Cell (a) and Platelet (b).

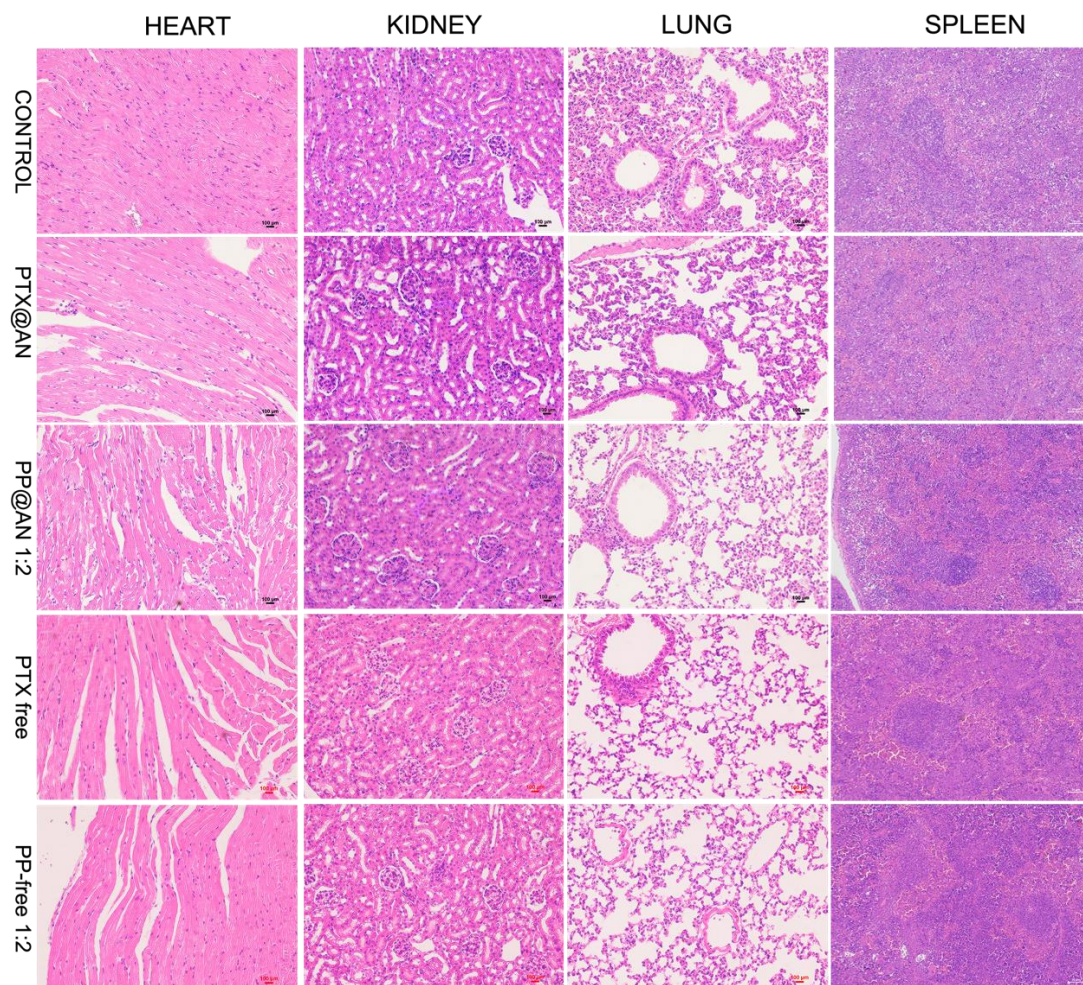


Figure S7. The HE stain of heart, kidney, lung and spleen.